

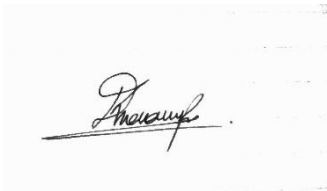
ASSIGNMENT TOP SHEET

Higher National Diploma in Information Technology Sri Lanka Institute of Information Technology

Student Registration Number	Student Name
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Module Title : Project & Professional Aspects		Module Code: IT1210
Lecturer in charge : Mr.Anuruddha Abeysinghe		
Assignment Title : PPA Lab - Assignment 01 (Simple Web App)		
Due Date: 18 September 2021	Date Submitted: 18 September 2021	
Please Tick here if you have used a proof-reader for this assessment :		
Turnitin Paper ID*		

*Not required if not submitting via Turnitin

Declaration	
<p>I declare that work presented in the assignment submitted to the Sri Lanka Institute of Information Technology is a record of an original work done by myself. This assessment is submitted in the partial fulfilment of the requirement for the award of the degree of Bachelor of Science in Information Technology. The results embodied in this report have not been submitted to any other University or Institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.</p>	
<p><i>Name(s) and Signature(s) :</i></p> <div style="text-align: center; margin-top: 20px;">  <p>D.K.Manamperi</p> </div>	<p><i>Date:</i></p> <p style="text-align: center; margin-top: 20px;">18th of September 2021</p>

Extension Deadline

Lecturer in charge agrees that the assignment may be submitted days after the deadline and should be marked without penalty.

Lecturer in charge confirmation:

Introduction and Description of the Project

This is a report for PPA lab assignment 01 that will fulfill the functionality of the simple dynamic single-page web application according to our scenario. As I'm under Scenario No.1 for the topic, "Pharmacy Lanka (PVT) Limited" has to make a simple web application that supports add item/view list/update items, and delete items. You need to facilitate the basic needs (CRUDs) for the medicines using a form. we free to select any attributes and processes. By evaluating the simple web app using HTML, JavaScript, and JSP languages and run the web app on Tomcat server v9.0 by developing on Eclipse IDE.

Content

- About the web app
- Functionalities and flow
- Used technologies
- Languages and reasons.
- Testing and Results with CRUD operations
- Guidelines to test your app

1. About the web app

It is a single page web application. This is scenario 1 on the topic of Pharmacy Lanka (PVT) Limited. At First, we get the Tomcat Server installed on our PC and start the server by searching it on the start bar go to services then after we right Click on the Apache TomCat 9.0 Tomcat9 (version) and click Start. After that, installed Eclipse IDE, open a new file, and choose Dynamic Web Project then created a project Call PPA_Scenario_01 and Pharmacy.jsp file. Created a Simple Coding using HTML and JavaScript languages to evaluate the simple Web App on Pharmacy.jsp file and run the server on Tomcat.

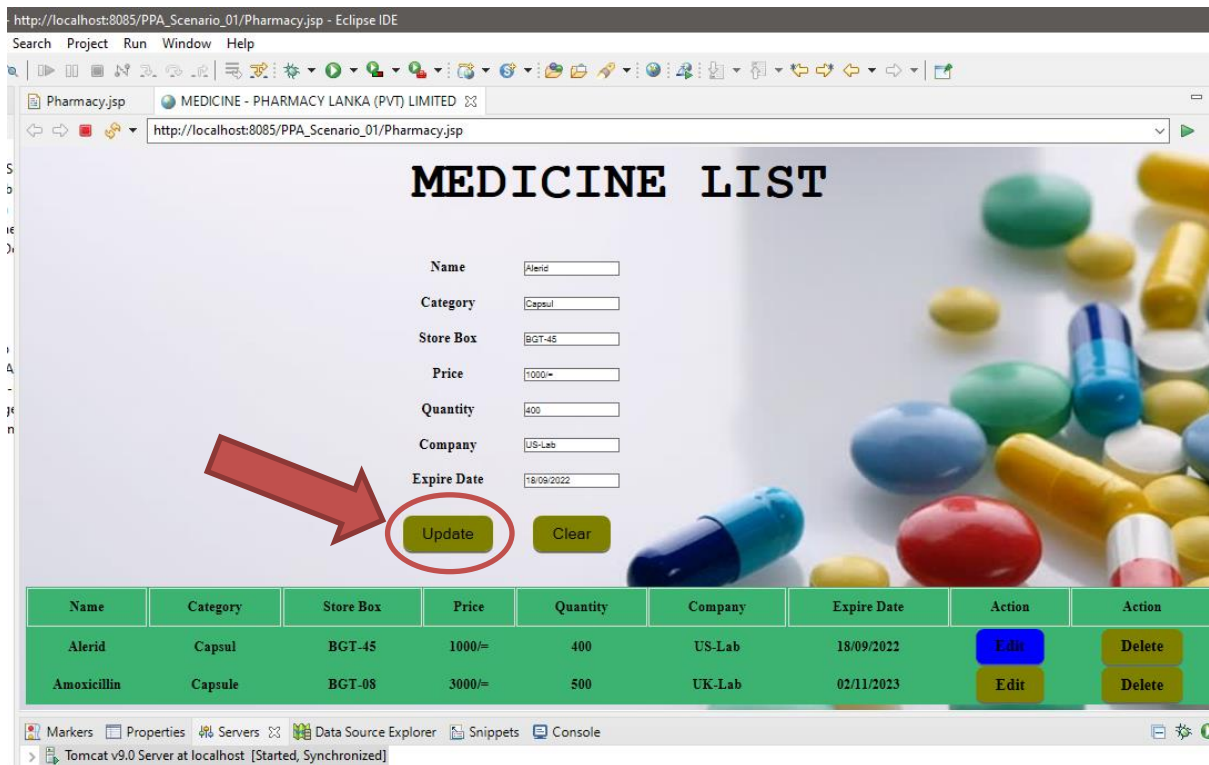
2. Functionalities and Flow

- **Background/heading** – Black Color Theory.
- **Add Button** – When you add values to the text fields in the table and Press ‘Add’ it adds all the values in order of the values you entered.
- **Update Button** – When values are added into the table. Then press ‘Update’
- **Clear Button** – When you enter the value on the text area. Then press ‘Clear’ its clear data.
- **Edit Button** – When values are added into the table. if you want edit that value, you can press ‘Edit Button’.
- **Delete Button** - When values are added into the table. Then press ‘Delete’ it delete data.

Functionalities and design of the Web App

The screenshot shows a web application running in a browser. The title is "MEDICINE LIST". Below the title is a form with the following fields: Name, Category, Store Box, Price, Quantity, Company, and Expire Date. Below the form are two buttons: "Add" and "Clear". Below the form is a table with the following columns: Name, Category, Store Box, Price, Quantity, Company, Expire Date, Action, and Action. The table contains two rows of data: Alerid (Capsul, BGT-45, 1000/=, 400, US-Lab, 18/09/2022) and Amoxicillin (Capsule, BGT-08, 3000/=, 500, UK-Lab, 02/11/2023). Red arrows point to the "Add", "Clear", "Edit", and "Delete" buttons.

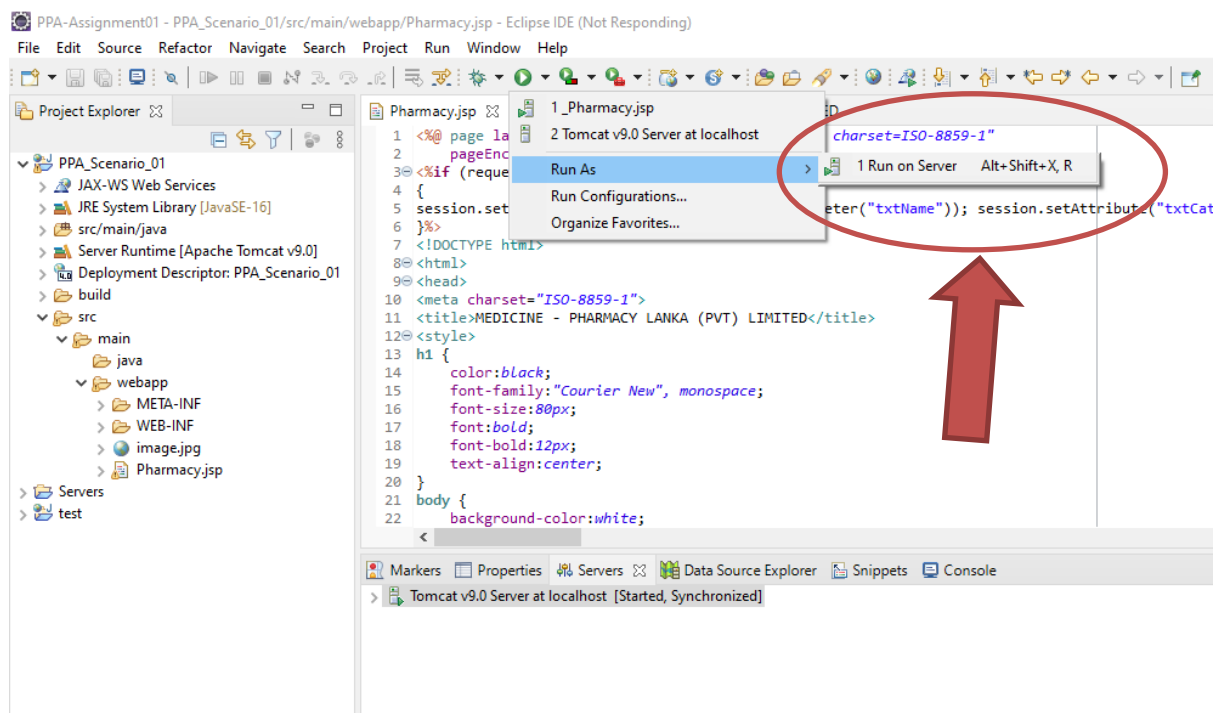
Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
Alerid	Capsul	BGT-45	1000/=	400	US-Lab	18/09/2022	Edit	Delete
Amoxicillin	Capsule	BGT-08	3000/=	500	UK-Lab	02/11/2023	Edit	Delete



3. Used Technologies

The Main server Technology on the web app is Tomcat server v9.0, then coding from HTML, CSS, JavaScript and jQuery languages which runs the Functions and show the web app meaningfully.

- Technology – Tomcat server v9.0 (Display the web app by running the server)



3. Language and Reasons

The main language is HTML, CSS coded to display the web app, jsp used to link the functions and java script, jQuery to get Alerts from the functions.

- ❖ HTML/CSS - Background image, heading size/color, Display tables/color, form, text fields and Buttons/color.
- ❖ Reasons – To make the web app look meaningful with all the fields mentioned above.

Simple HTML Coding

MEDICINE LIST

Name

Category

Store Box

Price

Quantity

Company

Expire Date

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
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MEDICINE LIST

Name

Category

Store Box

Price

Quantity

Company

Expire Date

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
Alerid	Capsul	BGT-45	1000/=	400	US-Lab	18/09/2022	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

JSP - Java Server Pages often serve the same purpose as programs. Assuming that Apache Tomcat is installed in C:\apache-tomcat-9.0 and your environment is setup as per environment setup tutorial.

Reasons – JSP allows embedding Dynamic Elements in HTML Pages itself instead of having separate CGI files.

Let us keep the above code in JSP file **Pharmacy.jsp** and put this file in **C:\apache-tomcat9.0\webapps\ROOT** directory. Browse through the same using URL **http://localhost:8085/PPA_Scenario_01/Pharmacy.jsp**. The above code will generate the following result.

MEDICINE LIST

Name

Category

Store Box

Price

Quantity

Company

Expire Date

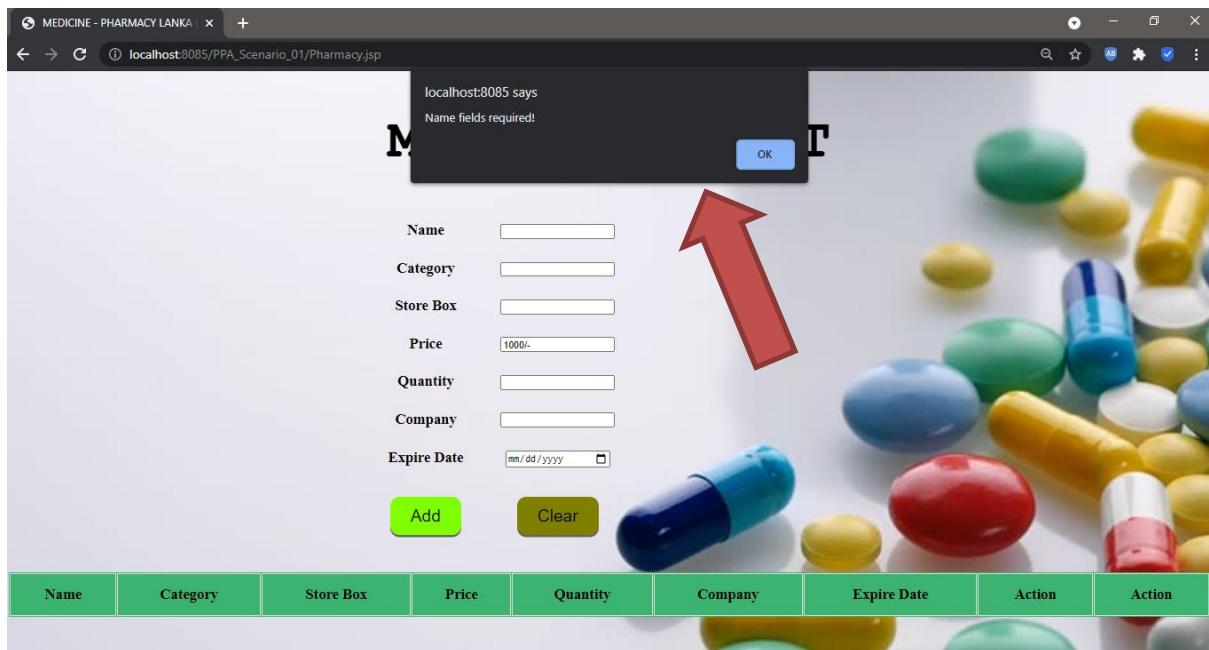
Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
------	----------	-----------	-------	----------	---------	-------------	--------	--------

Sample JSP

```
webapp/Pharmacy.jsp - Eclipse IDE
Project Run Window Help

1 <%@ page language="java" contentType="text/html; charset=ISO-8859-1"
2   pageEncoding="ISO-8859-1"%>
3
4 <%if (request.getParameter("txtName") != null)
5 {
6   session.setAttribute("txtName", request.getParameter("txtName")); session.setAttribute("txtCategory", request.getParameter("txt
7 }%>
8
9 <!DOCTYPE html>
10 <html>
11 <head>
12 <meta charset="ISO-8859-1">
13 <title>MEDICINE - PHARMACY LANKA (PVT) LIMITED</title>
14 <style>
15 h1 {
16   color:black;
17   font-family:"Courier New", monospace;
18   font-size:80px;
19   font-weight:bold;
20   text-align:center;
21 }
22 body {
23   background-color:white;
24   background-attachment:local;
25   background-repeat:no-repeat;
26   color: black;
27   font-weight:bold;
28   background-image:url("image.jpg");
29   background-size:cover;
30   font-size:1.3rem;
31 }
32 .button {
33   display: inline-block;
34   padding: 13px 29px;
35 }
```

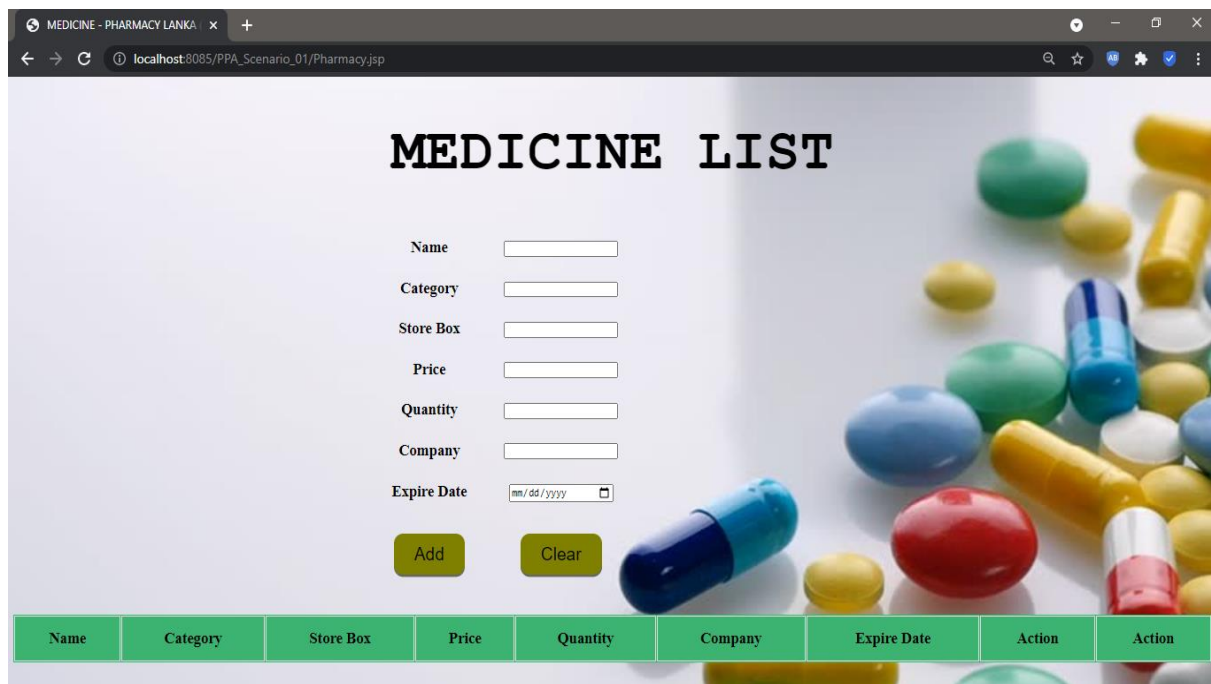

Reasons -: JavaScript- This is used to get the alerts by pressing the buttons.



4. Testing and Results with CRUD Operations

Add Button – When you enter the values into the text field and press ‘Add’ All Values display on the table.

1. Empty Text field



2. Enter Values in Text File

MEDICINE - PHARMACY LANKA

localhost:8085/PPA_Scenario_01/Pharmacy.jsp

MEDICINE LIST

Name

Category

Store Box

Price

Quantity

Company

Expire Date

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
Amoxicillin	Capsule	ARM-65	4025/=	852	US-Lab	2021-09-30	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

3. Press 'Add' Button & shows values, Edit/Delete Buttons

4. Edit Button - - This is to edit the values

MEDICINE - PHARMACY LANKA

localhost:8085/PPA_Scenario_01/Pharmacy.jsp

MEDICINE LIST

Name

Category

Store Box

Price

Quantity

Company

Expire Date

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
Amoxicillin	Capsule	ARM-65	4025/=	852	US-Lab	2021-09-30	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

javascript:void(0);

5. Update Button – This is to update the edit values

The screenshot shows a web browser window with the title "MEDICINE - PHARMACY LANKA". The URL is "localhost:8085/PPA_Scenario_01/Pharmacy.jsp". The main heading is "MEDICINE LIST". Below the heading is a form with the following fields: Name (Amoxicillin), Category (Capsule-5K4), Store Box (ARM-65), Price (4025/=), Quantity (852), Company (US-Lab), and Expire Date (09/30/2021). A red circle highlights the "Update" button, and a red arrow points to it. Below the form is a table with the following data:

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
Amoxicillin	Capsule	ARM-65	4025/=	852	US-Lab	2021-09-30	Edit	Delete

6. Delete Button - This is to delete all the values and get an Alert Are you sure want to delete this record!

Delete Alert

The screenshot shows the same web browser window as before, but with a delete alert dialog box open. The dialog box has the text "localhost:8085 says" and "Are you sure want to delete this record!". Below the dialog box is the same form as before, but with the "Delete" button highlighted. Below the form is the same table as before, but with the "Delete" button highlighted in red.

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
Amoxicillin	Capsule-5K4	ARM-65	4025/=	852	US-Lab	2021-09-30	Edit	Delete

7. Clear Button – This is to clear all the add values

The screenshot shows a web browser window with the title "MEDICINE - PHARMACY LANKA". The address bar shows "localhost:8085/PPA_Scenario_01/Pharmacy.jsp". The main heading is "MEDICINE LIST". Below the heading is a form with the following fields: Name (AleridCapsule), Category (Capsule), Store Box (AWE-89), Price (500/=), Quantity (700), Company (UK-Lab), and Expire Date (10 / 02 / 2021). There are two buttons: "Add" and "Clear". The "Clear" button is highlighted with a red circle and a red arrow pointing to it. Below the form is a table with the following data:

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
Amoxicillin	Capsule-5K4	ARM-65	4025/=	852	US-Lab	2021-09-30	Edit	Delete

It has Cleared all values

The screenshot shows the same web browser window as the previous one, but the form fields are now empty. The "Name" field is empty, the "Category" field is empty, the "Store Box" field is empty, the "Price" field is empty, the "Quantity" field is empty, the "Company" field is empty, and the "Expire Date" field is empty. The "Add" and "Clear" buttons are still present. Red arrows point to the "Name" and "Expire Date" fields, indicating they have been cleared. The table below the form remains the same:

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
Amoxicillin	Capsule-5K4	ARM-65	4025/=	852	US-Lab	2021-09-30	Edit	Delete

8. Alert - Name fields required!

localhost:8085 says
Name fields required!

OK

Name

Category

Store Box

Price

Quantity

Company

Expire Date

Add Clear

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
Amoxicillin	Capsule-5K4	ARM-65	4025/=-	852	US-Lab	2021-09-30	Edit	Delete

Tested with Tomcat server localhost

Click Manager App

Apache Tomcat/9.0.52

If you're seeing this, you've successfully installed Tomcat. Congratulations!

Recommended Reading:
[Security Considerations How-To](#)
[Manager Application How-To](#)
[Clustering/Session Replication How-To](#)

Server Status
Manager App
Host Manager

Developer Quick Start
[Tomcat Setup](#)
[First Web Application](#)
[Realms & AAA](#)
[JDBC DataSources](#)
[Examples](#)
[Servlet Specifications](#)
[Tomcat Versions](#)

Managing Tomcat
For security, access to the [manager webapp](#) is restricted. Users are defined in:
\$CATALINA_HOME/conf/tomcat-users.xml
In Tomcat 9.0 access to the manager application is split between different users.
[Read more...](#)
[Release Notes](#)
[Changelog](#)
[Migration Guide](#)
[Security Notices](#)

Documentation
[Tomcat 9.0 Documentation](#)
[Tomcat 9.0 Configuration](#)
[Tomcat Wiki](#)
Find additional important configuration information in:
\$CATALINA_HOME/RUNNING.txt
Developers may be interested in:
[Tomcat 9.0 Bug Database](#)
[Tomcat 9.0 JavaDocs](#)
[Tomcat 9.0 Git Repository at GitHub](#)

Getting Help
[FAQ and Mailing Lists](#)
The following mailing lists are available:
[tomcat-announce](#)
Important announcements, releases, security vulnerability notifications. (Low volume).
[tomcat-users](#)
User support and discussion
[tomcat-dev](#)
User support and discussion for [Apache Tomcat](#)
[tomcat-dev](#)
Development mailing list, including commit messages

Other Downloads
[Tomcat Connectors](#)
[Tomcat Native](#)

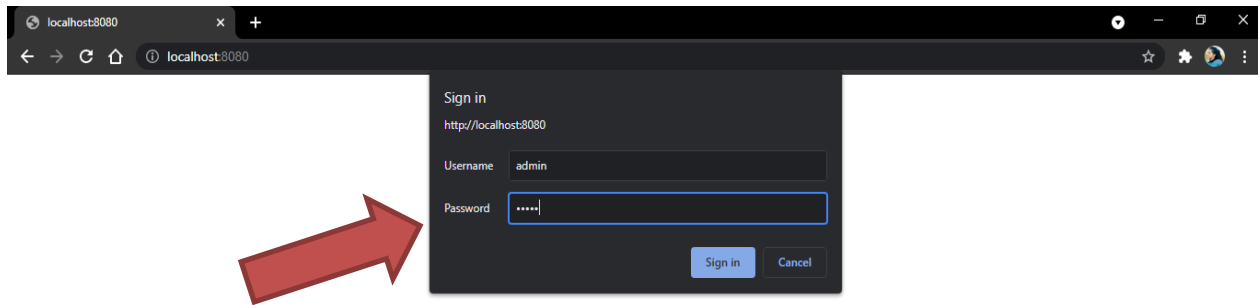
Other Documentation
[Tomcat Connectors](#)
[mod_jk Documentation](#)

Get Involved
[Overview](#)
[Source Repositories](#)

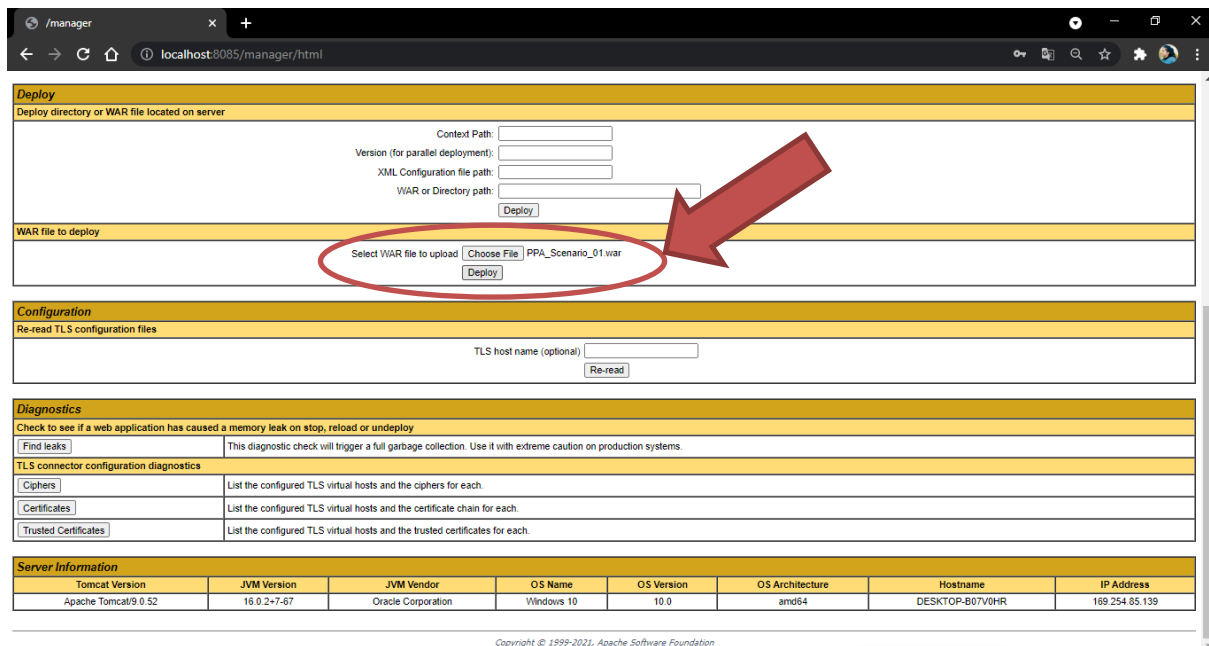
Miscellaneous
[Contact](#)
[Legal](#)

Apache Software Foundation
[Who We Are](#)

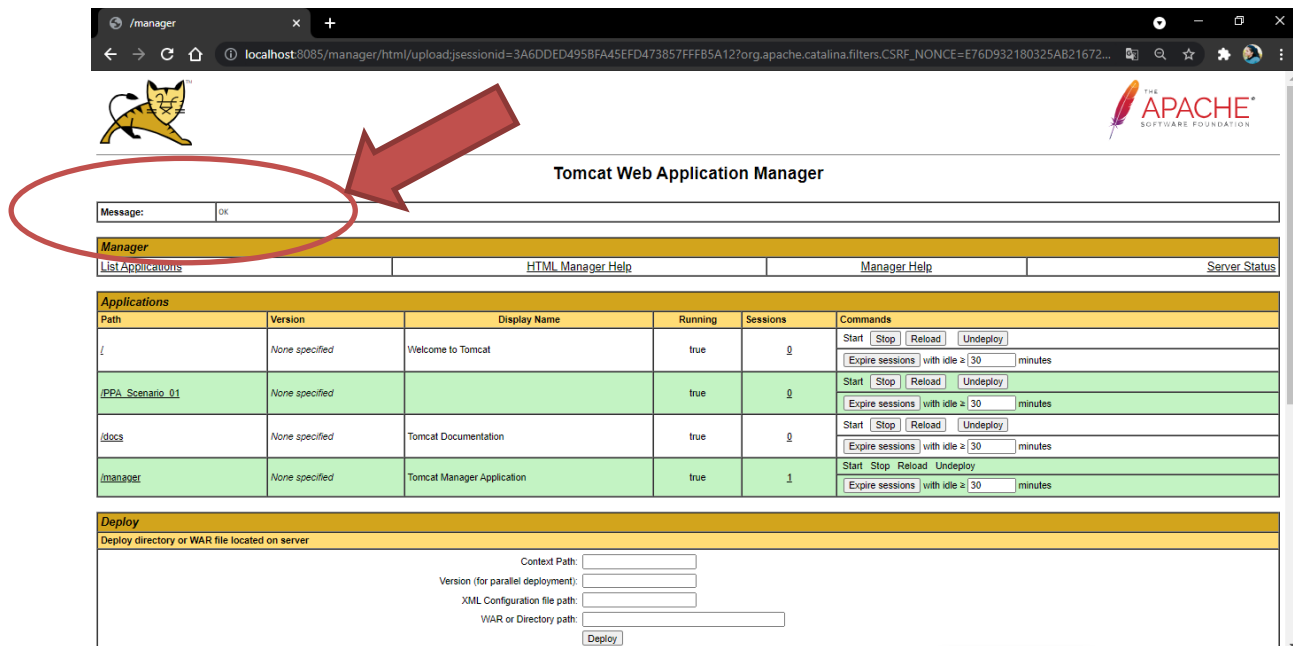
log in to the server



click choose file button from WAR file to deploy section and select your WAR file. Then click Deploy



I got the OK message



Tomcat Web Application Manager

Message: OK

Manager

List Applications HTML Manager Help Manager Help Server Status

Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/PPA_Scenario_01	None specified		true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/docs	None specified	Tomcat Documentation	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/manager	None specified	Tomcat Manager Application	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

Deploy

Deploy directory or WAR file located on server

Context Path:

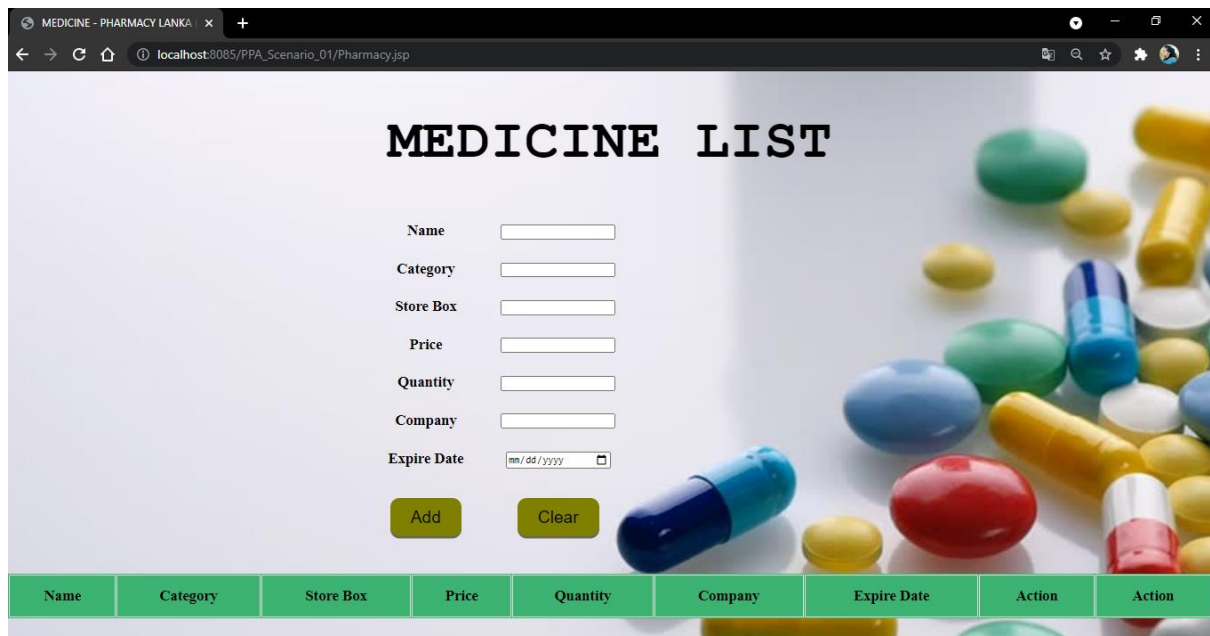
Version (for parallel deployment):

XML Configuration file path:

WAR or Directory path:

Deploy

After that run my web app on the browser. Open the Web App Successfully.



MEDICINE LIST

Name

Category

Store Box

Price

Quantity

Company

Expire Date

Add Clear

Name	Category	Store Box	Price	Quantity	Company	Expire Date	Action	Action
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5. Guidelines to test your app

Open with the file PPA_Scenario_01.war and view the Web App and use all the functionalities otherwise you can open the project file from eclipse IDE and run the web app on my tomcat server and copy the link from the run project. After copying, paste it into the browser with the localhost/(Project Name).

http://localhost:8085/PPA_Scenario_01/Pharmacy.jsp

THANK YOU!